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A Let's-Read-and-Find-Out Book

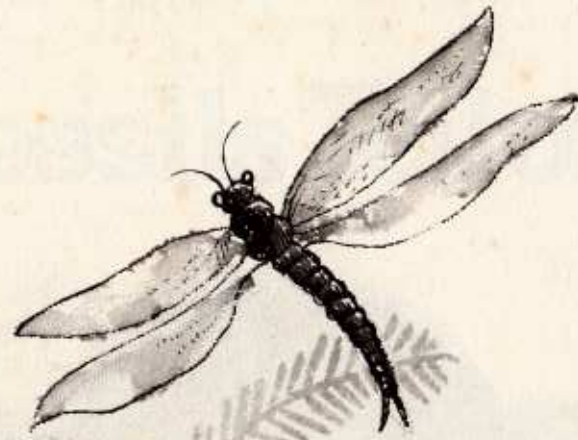
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# Fossils Tell of Long Ago

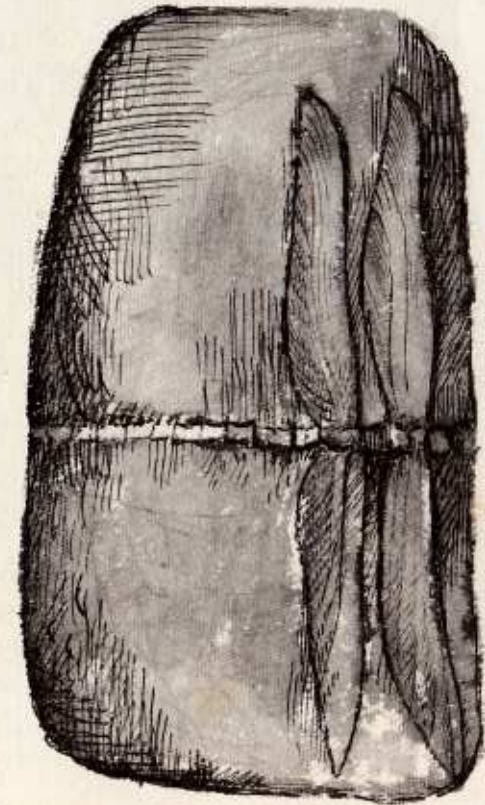
written and illustrated by **ALIKI**







## Fossils Tell of Long Ago







# Fossils Tell of Long Ago

BY ALIKI



A Harper Trophy Book



## LET'S-READ-AND-FIND-OUT BOOKS

*Let's-Read-and-Find-Out Books* are edited by Dr. Roma Gans, Professor Emeritus of Childhood Education, Teachers College, Columbia University, and Dr. Franklyn M. Branley, Astronomer Emeritus and former Chairman of the American Museum-Hayden Planetarium. Text and illustrations for each of the more than 100 books in the series are checked for accuracy by an expert in the relevant field. Other titles available in paperback are listed below. Look for them at your local bookstore or library.

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*What Happens to a Hamburger*  
*What I Like About Toads*  
*What Makes Day and Night*  
*What the Moon Is Like*  
*Why Frogs Are Wet*  
*Your Skin and Mine*

*Fossils Tell of Long Ago*

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Fossils Tell of Long Ago







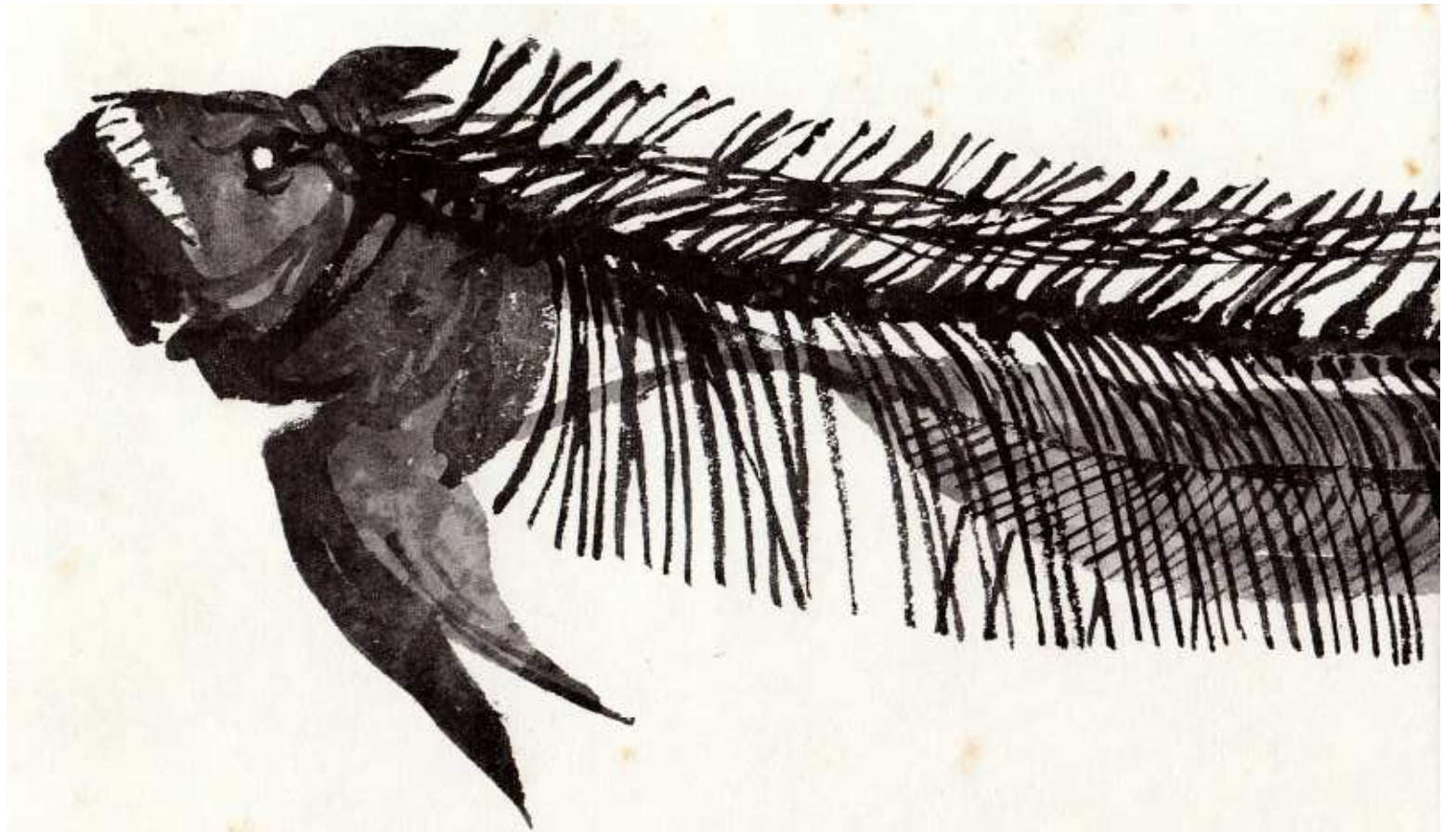
Once upon a time a huge fish was swimming around  
when along came a smaller fish.

The big fish was so hungry it swallowed the other  
fish whole.

The big fish died and sank to the bottom of the lake.







This happened ninety million years ago.

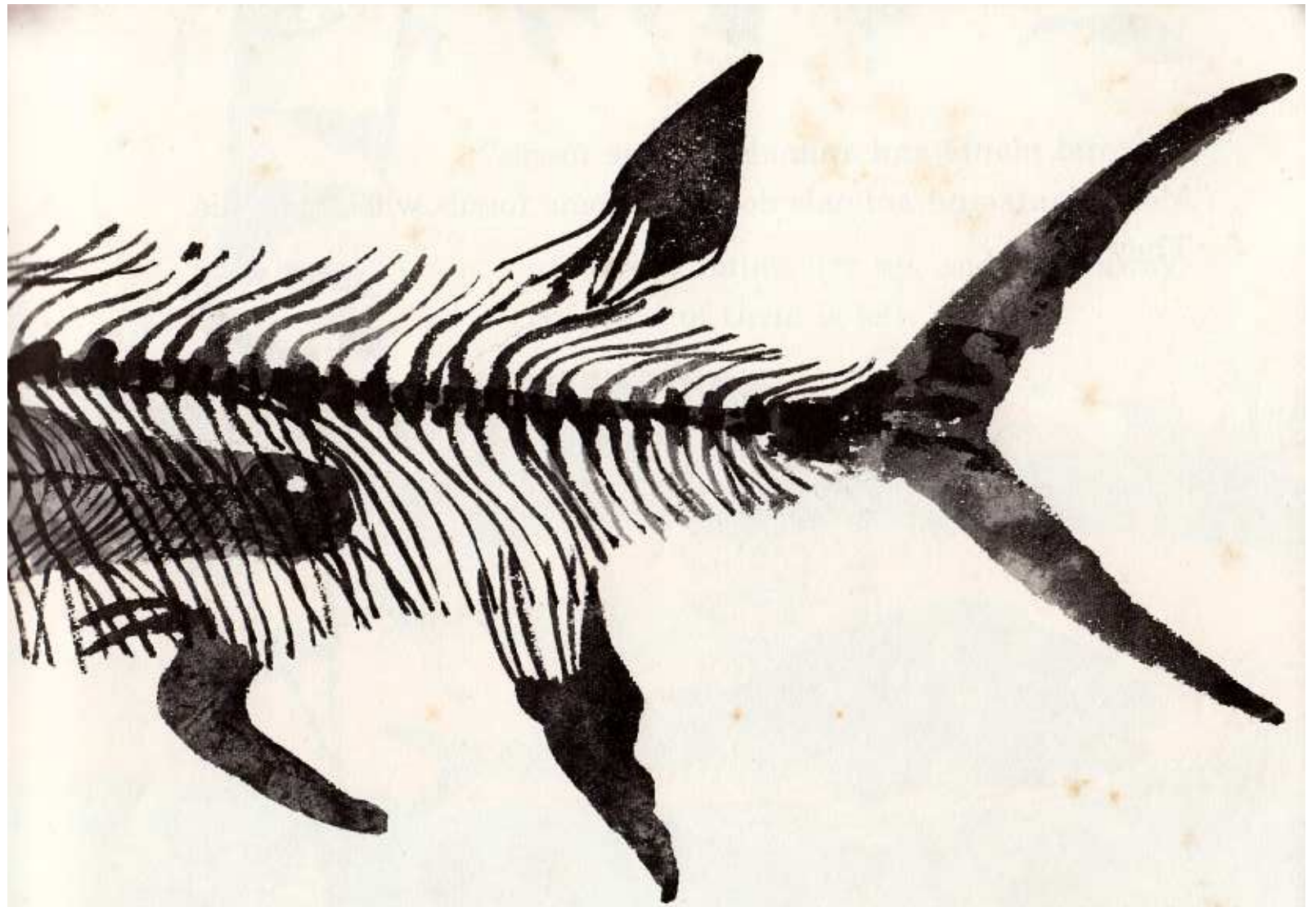
How do we know?

We know because the fish turned to stone.

The fish became a fossil.

A plant or an animal that has turned to stone is called a fossil.





Scientists can tell how old stones are.  
They could tell how old the fish fossil is.  
So we know how long ago the fish lived.



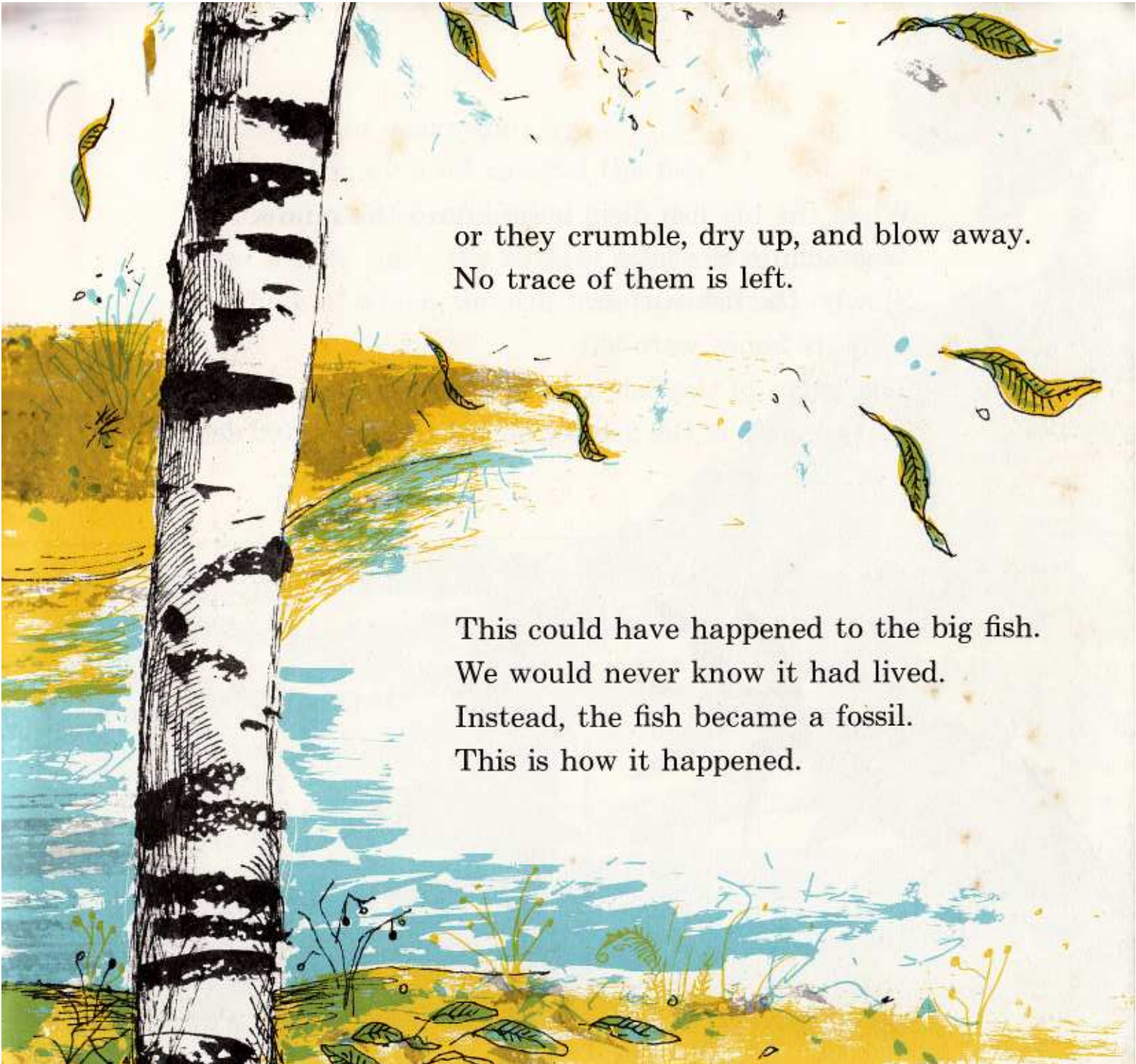
How did plants and animals become fossils?

Most plants and animals do not become fossils when they die.

They rot,





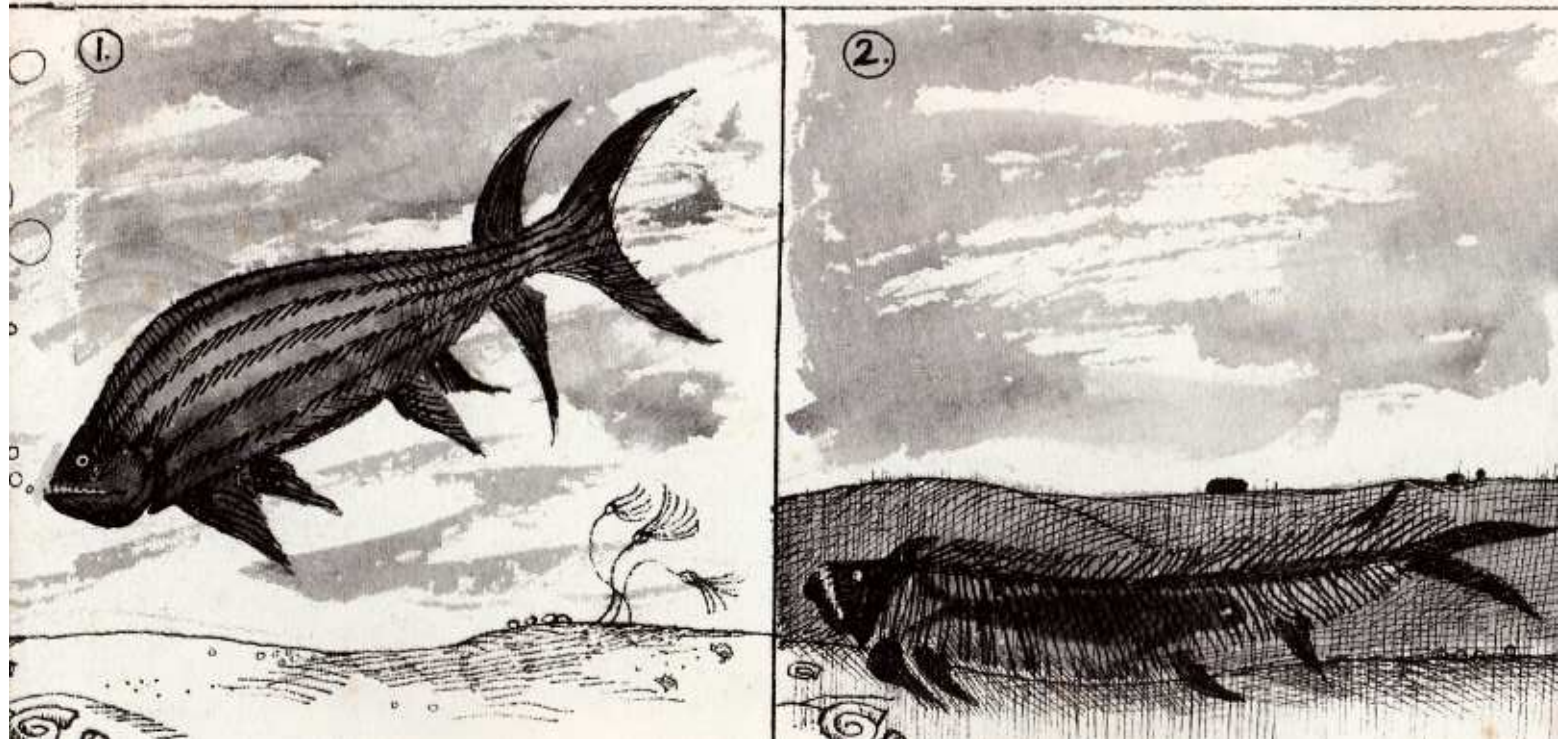


or they crumble, dry up, and blow away.  
No trace of them is left.

This could have happened to the big fish.  
We would never know it had lived.  
Instead, the fish became a fossil.  
This is how it happened.

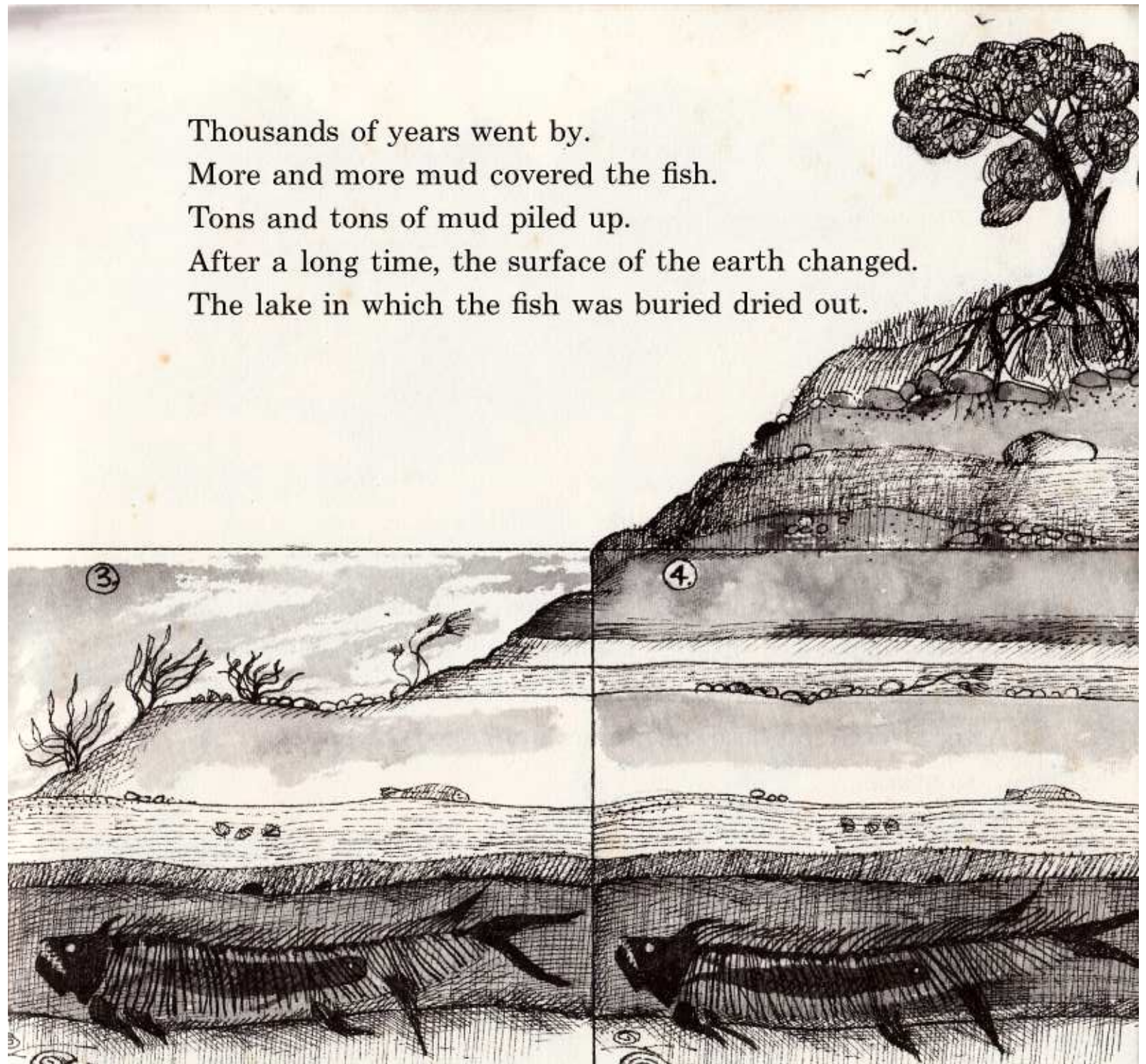


When the big fish died, it sank into the mud at the bottom of the lake.  
Slowly, the fish rotted.  
Only its bones were left.  
The bones of the fish it had eaten were left, too.  
The skeleton of the fish lay buried and protected deep in the mud.





Thousands of years went by.  
More and more mud covered the fish.  
Tons and tons of mud piled up.  
After a long time, the surface of the earth changed.  
The lake in which the fish was buried dried out.





It rained on the drying mud.  
Water seeped through the mud.  
Minerals from stones were dissolved in the water.  
The water seeped into all the tiny holes in the fish bones.  
The minerals in the water were left behind in the fish bones.  
After a very long time the minerals changed the bones  
to stone.  
The fish was a fossil.  
The mud around the bones became hard as rock, too.



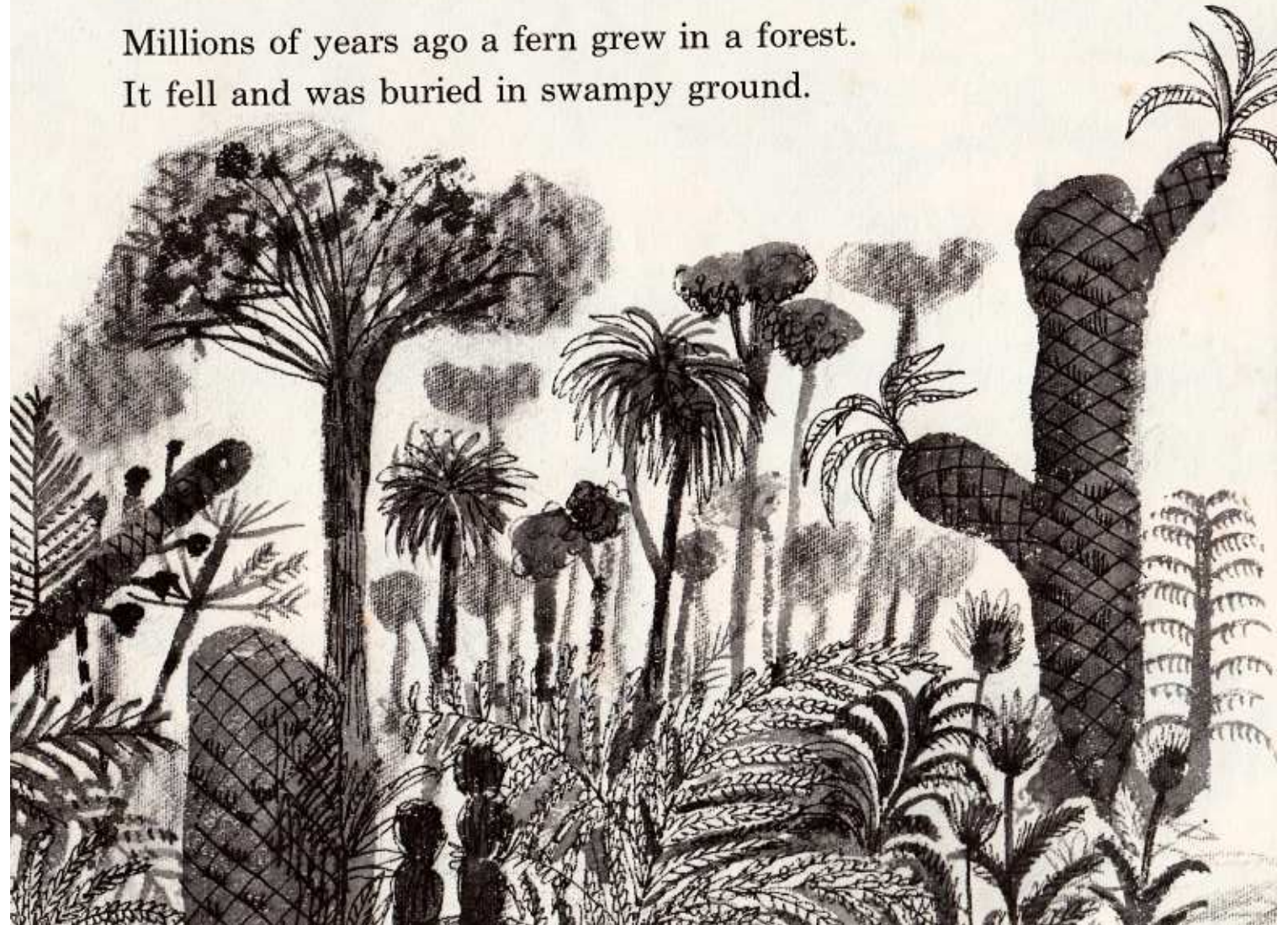




Some fossils, like the fish, are bones or shells that  
have turned to stone.

Sometimes a fossil is only an imprint of a plant or an animal.

Millions of years ago a fern grew in a forest.  
It fell and was buried in swampy ground.



The fern rotted away.  
But it left the mark of its shape in the mud.  
It left its imprint.  
The mud hardened.  
The mud, with the imprint of the fern,  
became a fossil called coal.  
Many fossils of plants and animals are found in coal.





This is a dinosaur track.

It was made in fresh mud two hundred million years ago.







Hot melted stone from a volcano filled the dinosaur's  
footprint in the mud.

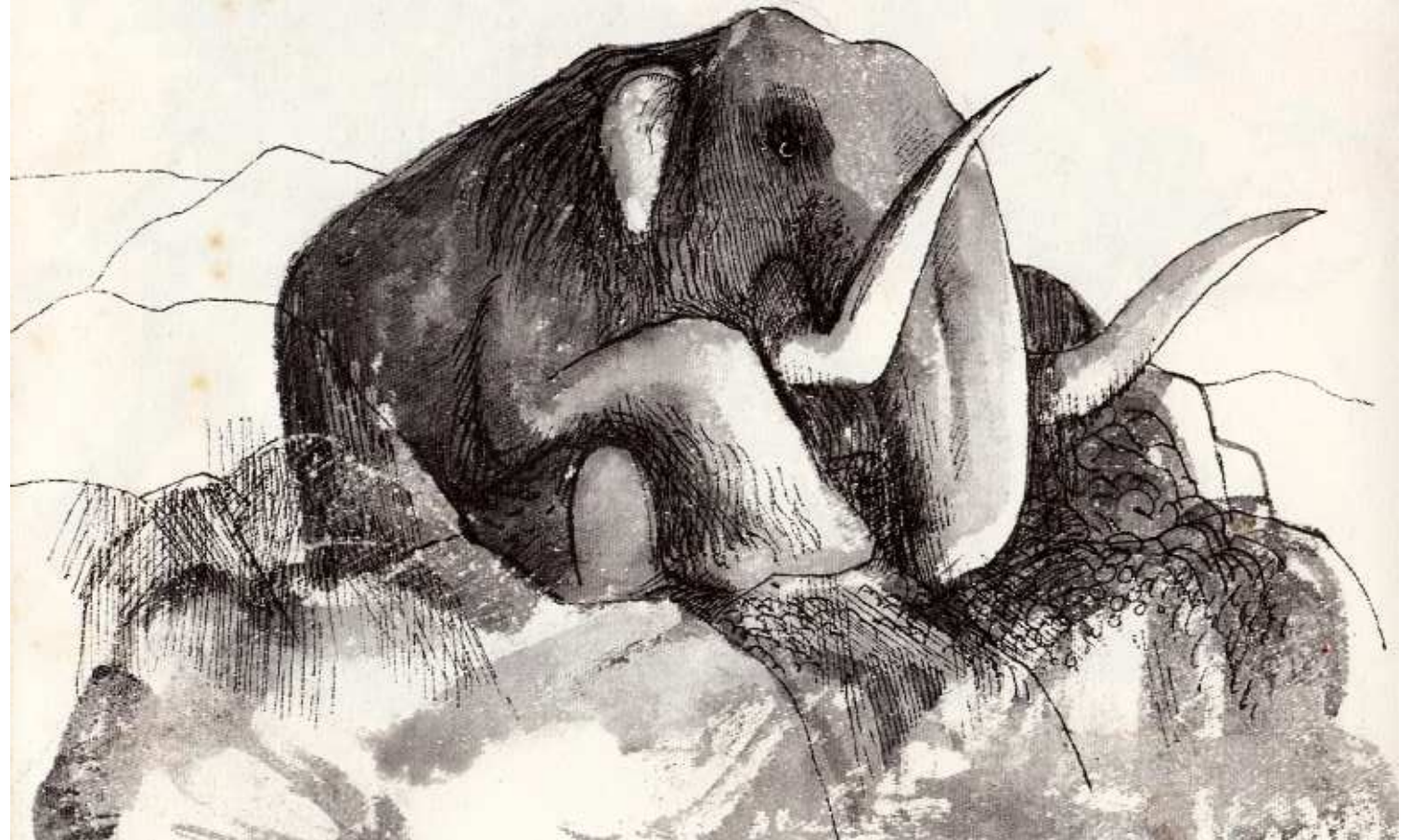
The stone cooled and hardened.

A few years ago fossil hunters dug through the stone.

They found an exact imprint of a dinosaur's foot.



Not all fossils are found in stone.  
Some are found in the frozen ground of the Arctic.  
This ancient mammoth was a kind of elephant.  
It was frozen thousands of years ago.  
It was found not long ago buried in the frozen ground.  
The grass it had been eating was still in its mouth.

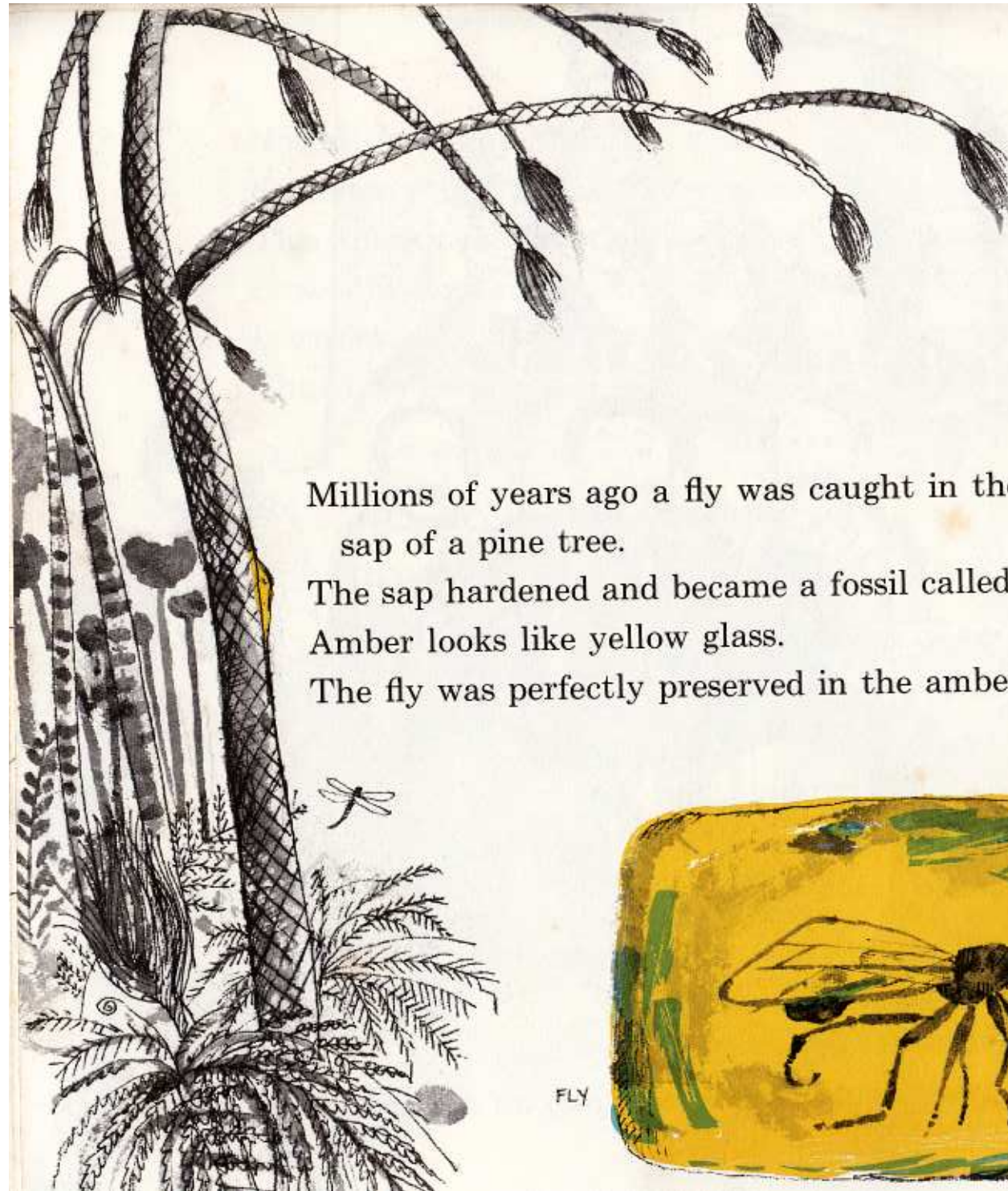






The mammoth was fresh enough to eat!  
Someone who ate a piece  
said it was dry and not very tasty.  
But what could you expect from an ancient mammoth?





Millions of years ago a fly was caught in the sticky sap of a pine tree.

The sap hardened and became a fossil called amber. Amber looks like yellow glass.

The fly was perfectly preserved in the amber.

FLY







Other insects and even plants have been preserved in amber.



FERN LEAF



SPIDER



COCKROACH



We have learned many things from the fish, the fern,  
the fly, and the dinosaur track.  
Fossils tell us about the past.  
Fossils tell us there once were forests—







where now there are rivers.  
We find fossils of trees in the bottoms of some riverbeds.



Many lands that are cold today were once warm.  
We find fossils of tropical plants in very cold places.

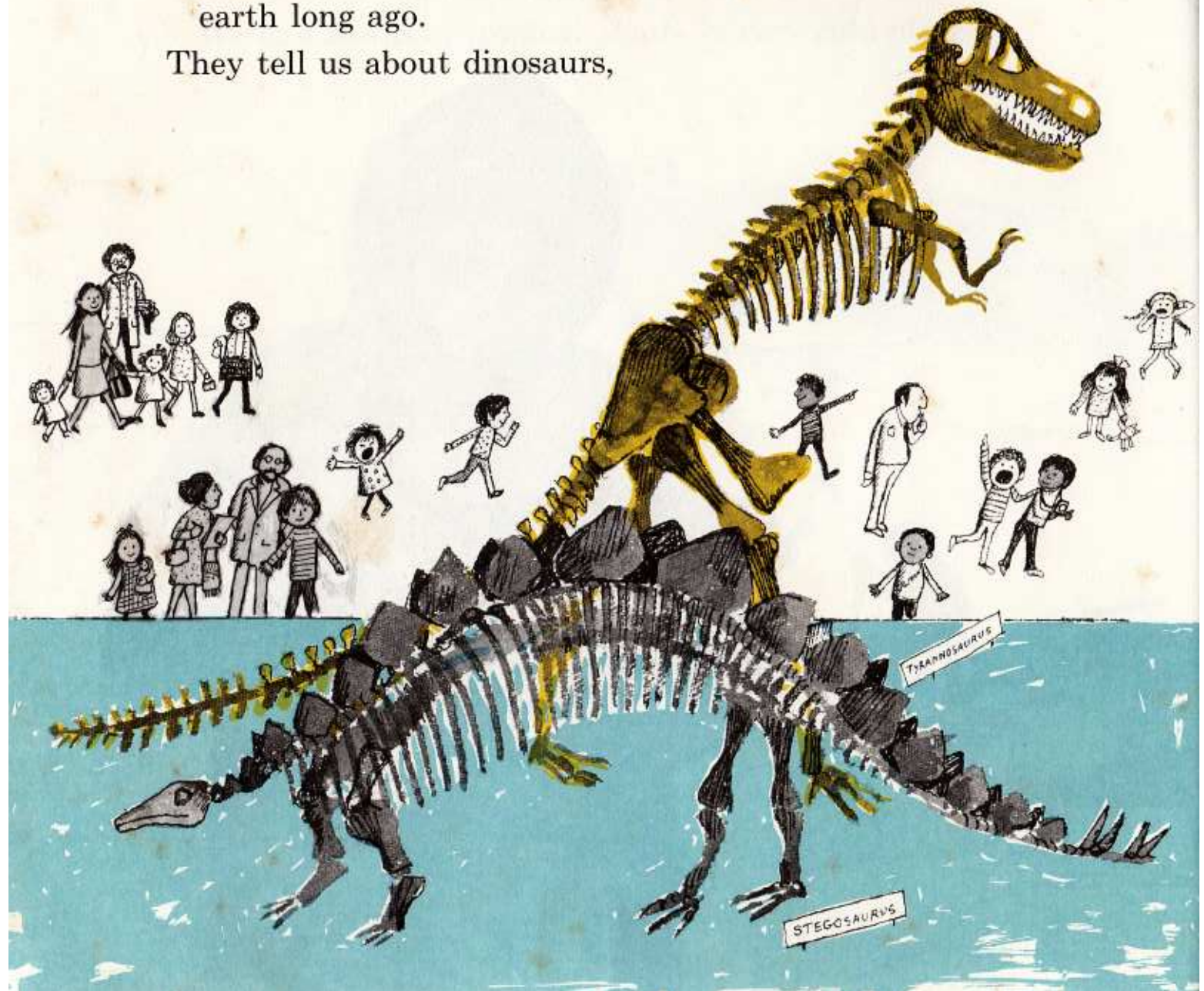




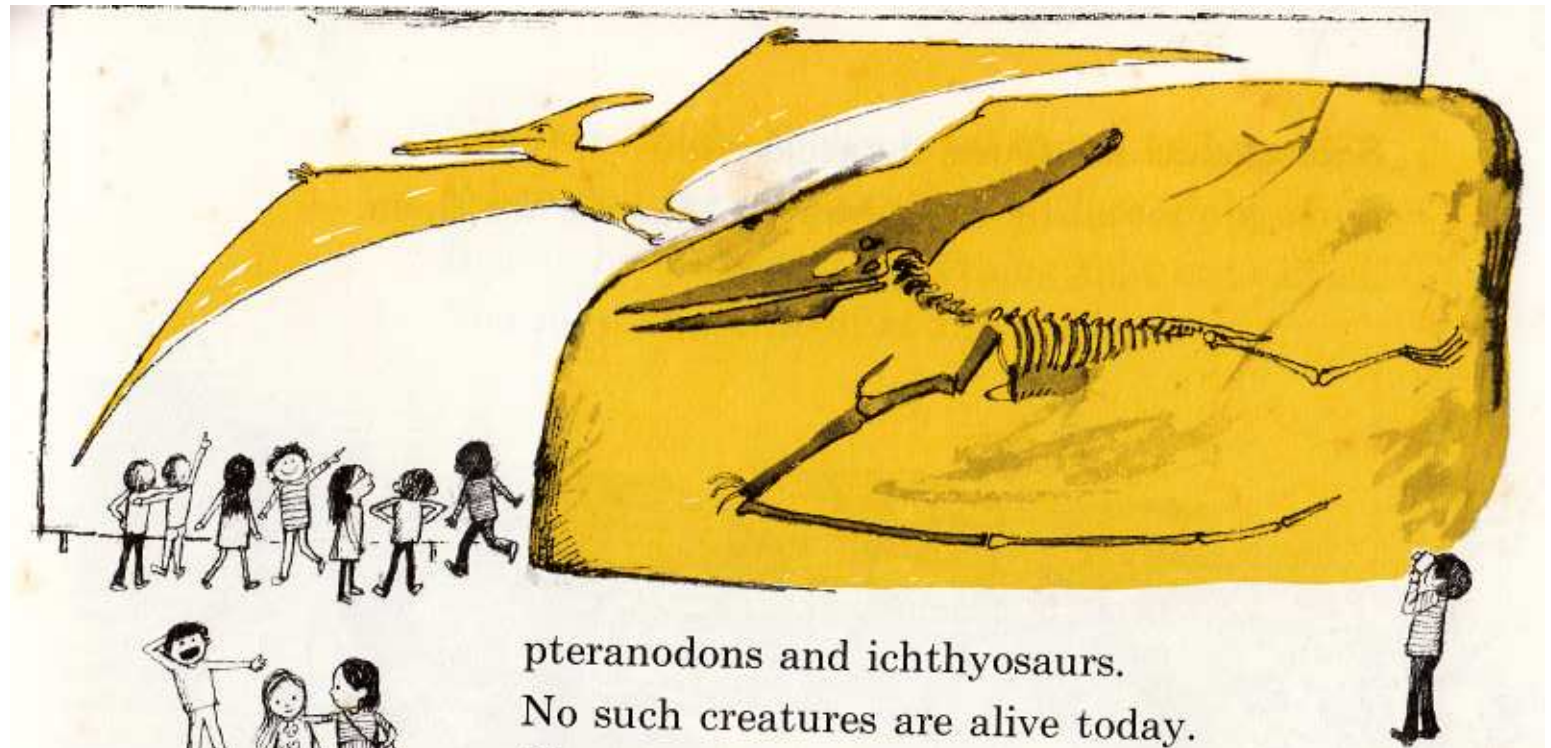




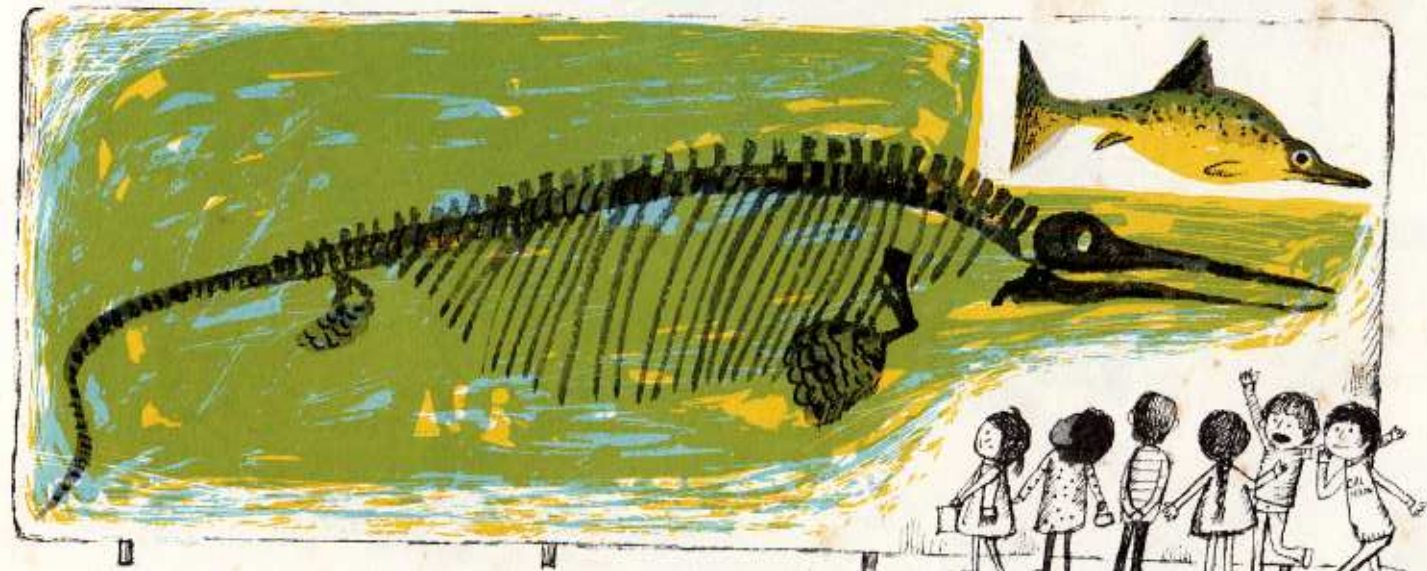
Fossils tell us about strange creatures that lived on  
earth long ago.  
They tell us about dinosaurs,





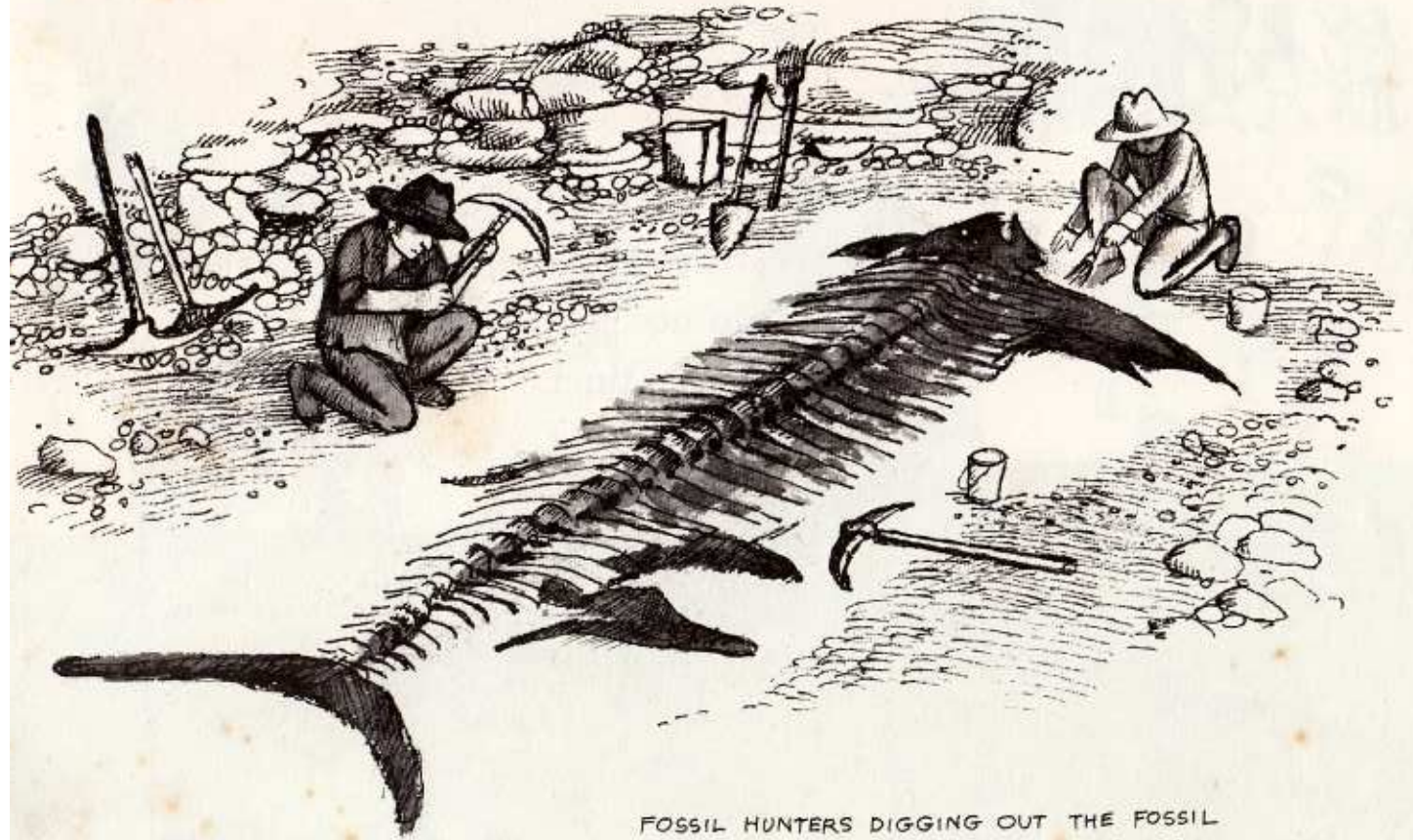


pteranodons and ichthyosaurs.  
No such creatures are alive today.  
They have died out.  
We say they are extinct.





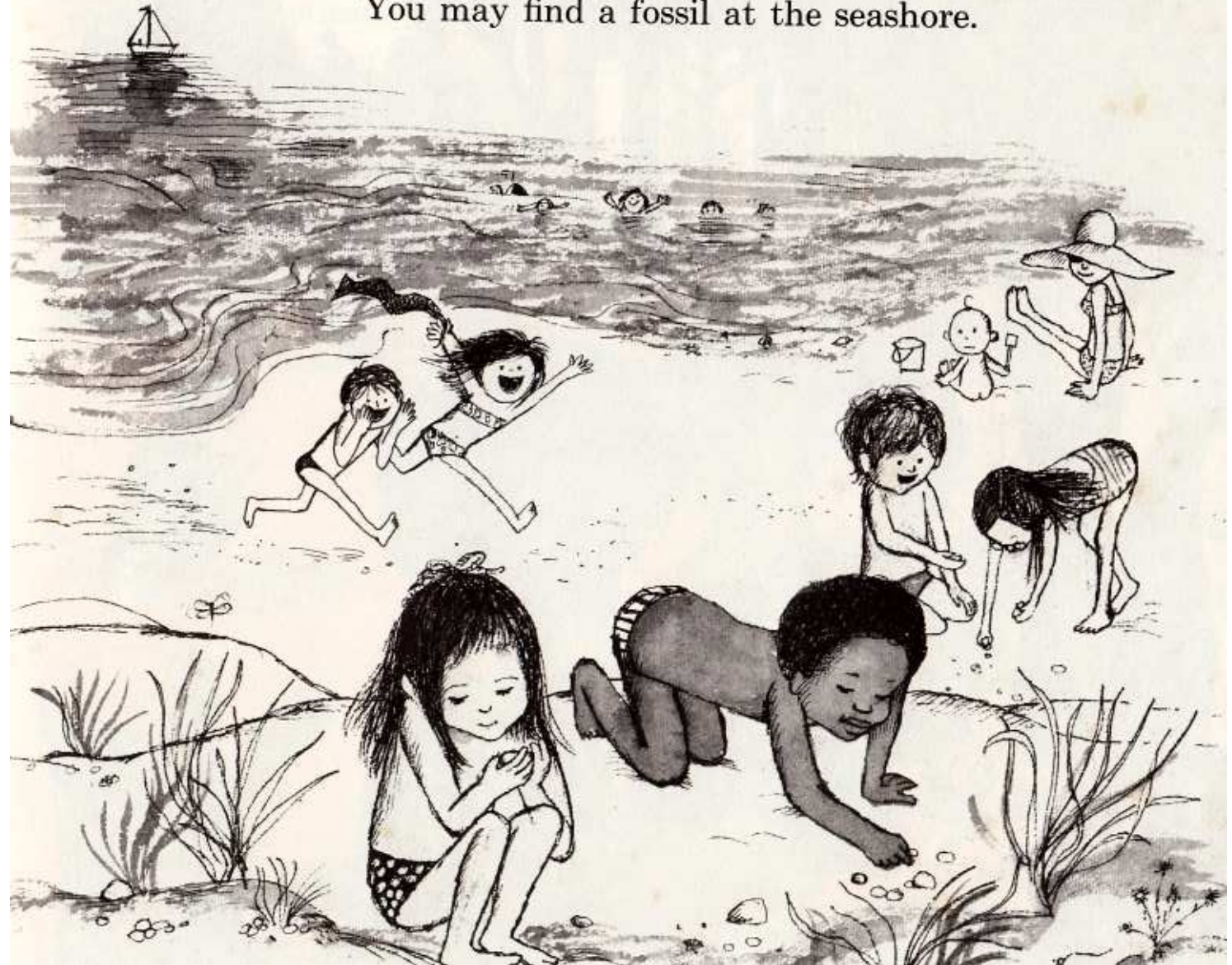
Some fossils are found by accident.  
Some are found by fossil hunters who dig for them.



FOSSIL HUNTERS DIGGING OUT THE FOSSIL  
OF THE BIG FISH, PORTHEUS, IN KANSAS.



You, too, might find a fossil if you look hard.  
When you see a stone, look at it carefully.  
It may be a fossil of something that once lived.  
You may find a fossil at the seashore.









You may find a fossil in the woods, or by a newly dug road.  
You may find a fossil in the field or on a mountain top.  
If you live in the city, you may find a fossil there, too.  
Sometimes you can see them in the polished limestone  
walls of some buildings.





How would you like to make a fossil?  
Not a one-million-year-old fossil but a  
one-minute-old “fossil.”  
Make a clay imprint of your hand, like this:

Take some clay.  
Flatten it out.  
Press your hand in the clay.  
Lift your hand away.

Your hand is gone, but its shape is in the clay.  
You made an imprint.  
The imprint shows what your hand is like, the way  
a dinosaur’s track shows us what his foot was like.









Suppose, when it dried, you buried your clay imprint.  
Suppose, a million years from now, someone found it.  
Your imprint would be hard as stone.  
It would be a fossil of your hand.  
It would tell something about you.  
It would tell the finder something about life on earth  
a million years earlier.



Every time anyone finds a fossil we learn more about  
life on earth long ago.

Someday you may find a fossil, one that is millions  
and millions of years old.

You may discover something that no one knows today.





## ABOUT ALIKI

One of the things Aliki likes to do best, along with drawing pictures and writing books and growing plants, is to travel.

One summer Aliki and her husband, Franz Brandenburg, and their children, Jason and Alexa, were in Greece. It was there, on a dusty road, that Jason found a fossil of brachiopods.

Although Aliki had been interested in fossils before then, this book is a result of Jason's discovery.

Aliki Brandenburg grew up in Philadelphia and was graduated from the Philadelphia College of Art. She worked in many phases of art before she began writing and illustrating books for children.



# Fossils Tell of Long Ago

Ages 4 to 8

Millions of years ago dinosaurs lived on earth. Millions of years ago there were forests where now there are rivers. Places that once were tropical jungles are now freezing cold. How do we know? Fossils tell us. Explaining what fossils are and how they are formed, Aliko has written an appealing, easy-to-read introduction to a subject that fascinates young children.

"This factually accurate, clearly written text will be welcomed by primary graders, who are usually captivated by fossils and dinosaurs."  
—*School Library Journal*

"Lively and amusing drawings add to the informational value."  
—*Bulletin of the Center for Children's Books*

**Aliko** is the author and illustrator of many outstanding books for children, including *DIGGING UP DINOSAURS*, *MY VISIT TO THE DINOSAURS*, and *WILD AND WOOLLY MAMMOTHS*, all available in Harper Trophy editions.

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